



SEMS DocID 623836

August 27, 1984

Dick Barlow  
 State Of Connecticut  
 Department of Environmental Protection  
 165 Capitol Avenue  
 Hartford, CT. 06106

Re: Olin Corp.- Pine Swamp Validated Data

- 8-9-84  
 8-7-84

Dear Mr. Barlow:

Enclosed are the data Validation reports for samples taken at the "Pine Swamp" site in Hamden Connecticut. As per our phone conversation of August 6, 1984 I am sending these to you before receipt of the site inspection report. A copy of this report will be sent to you after we proofread the draft.

Sincerely,

Steven Farrick  
 Chemical Engineer

IEPA:WM:Steven F.:gp:8/27/84

encl.

8/27/84 - note to files

- note - in future should not send out validated data reports till E. Taylor signs off on them. This will grant authority to publicly release info.

## CONCURRENCES

SYMBOL								
SURNAME	SF							
DATE								

**NUS CORPORATION**  
**SUPERFUND DIVISION**

**INTERNAL CORRESPONDENCE**

C-583-8-4-27

TO: ED TAYLOR

DATE: AUGUST 9, 1984

FROM: VALERIE TILLINGHAST

COPIES: FILE

SUBJECT: COLIN DATA VALIDATION, CASE 2620 INORGANICS, RMA  
TDD NO. F1-8305-04  
JOB NO. 3408  
0300.01

Rocky Mountain Analytical performed the inorganic analysis of 30 solid and aqueous samples from case 2620. Sample numbers are as follows:

<u>matrix</u>	<u># samples</u>	<u>sample numbers</u>
solid	4	MA 0213, 31, 33, 35
aqueous	26	MA 0214-20, 22, 24-30 MA 0232, 34, 36-40 MA 0315, 16 MA 9762, 63

A level I data validation was conducted on this package considering the following parameters:

- data completeness
- lab and blind blanks
- lab and blind duplicates
- matrix spike recoveries
- calibration verifications
- interference check
- detection limits
- holding times

Duplicate analysis was the main problem with this case. Matrix spike recoveries were all within QC limits, so standard additions were not necessary. Arsenic, cadmium, iron and manganese, however, were out of control in the soil duplicate matrix spike and should be approximated in all soils. Lead and mercury were outside QC limits in the field soil duplicate and should also be approximated. The laboratory aqueous duplicate was acceptable, but iron was out of control in the field aqueous duplicate. Iron should therefore be approximated in all aqueous samples in which it was found.

MEMO TO: ED TAYLOR  
AUGUST 9, 1984-PAGE TWO

There was a transcription error involving the lead values of four aqueous samples, MA 0216 through 0219. The lead concentrations on the worksheet in the raw data section do not correspond with the values reported on the data summary sheets. The lab has been informed of this problem and should send data sheets with the correct values shortly. Until then, lead values for these samples should not be used.

Analysis of these samples was otherwise very good. No contaminants were found in any of the lab or blind blanks. Calibration verifications, interference checks, detection limits and holding times were all documented and within contractual criteria.


Recommendations for this case are summarized below.

solids:     arsenic, cadmium, iron, mercury, manganese and lead should be approximated (J'd) in samples MA 0231, 33 and 35.

aqueous:     iron should be approximated (J'd) in the following sample numbers:

MA 0215-20, 22, 24, 25  
MA 0228-30, 32, 34, 36, 38, 39  
MA 0315, 16  
MA 9762

I hereby acknowledge receipt and approval of case 2620 inorganics data validation by NUS/FIT.

  
Deputy Project Officer  
Regional Sample Control Center

VT/mth

cc: D. Smith	J. Morin
D. Gagne	J. Panaro
R. Cavagnero	A. DeMarco
R. DiNitto	

NUS CORPORATION  
SUPERFUND DIVISION

INTERNAL CORRESPONDENCE

C-583-8-4-15

TO: ED TAYLOR

DATE: AUGUST 7, 1984

FROM: VALERIE TILLINGHAST

COPIES: FILE

SUBJECT: CLIN DATA VALIDATION, CASE 2620 SOILS, MEAD

TDD No. F1-8305-04

Job No. 3408

0300.01

Case 2620 from Mead CompuChem includes the organic analysis of four soil samples, numbers A2316, 34, 36, and 38. A level I data validation was conducted on this package considering the following parameters:

- data completeness
- spectral performance
- lab and blind blanks
- lab and blind duplicates
- matrix spikes
- surrogate spikes
- holding times

Lab blanks for this case contained methylene chloride and chrysene. Chrysene was found in sample A2336 and 38 at greater levels than in the blank. These values should be considered approximate. Methylene chloride was found in all four samples, including the blind blank which contained the highest level. Methylene chloride data should therefore be rejected.

Surrogate spike recoveries for volatiles, base/neutral and TCDD were all within criteria. Acid recoveries were outside of QC limits for all four samples. Samples A2316 and 36 each had one of the three acid spikes just 1 to 2% out of control. This is not a serious deviation, so the acid fraction is still considered acceptable for these samples. The other two, A2334 and 38, each had all three of three recoveries 10% or less. Repeat analysis of this fraction led to similar recoveries a second time, confirming the problem as a matrix effect. Pesticide recoveries for these two were low as well, probably due to the matrix effects. Nothing was found in the acid or pesticide fraction of either A2334 or 38, so these fractions should be rejected on the grounds that compounds may have been present, but were not detected due to poor recoveries.

The pesticide fraction of A2336 should also be rejected. Nothing was detected, but the sample was diluted by a factor of 15 before pesticide analysis. The resulting minimum detection limit was 60 ug/l, so lower levels of pesticides may have been present.

C-583-8-4-15

MEMO TO ED TAYLOR  
AUGUST 7, 1984 - PAGE TWO

Acid and pesticide recoveries were low for the matrix spikes as well, supporting the conclusion that low surrogate recoveries were due to a matrix problem. Four out of five volatiles were seriously out of control in the split spike data. Duplicate analysis this poor merits the approximation of the volatile fraction for all samples.

Blind duplicate analysis was also very poor. The major problem was in the base/neutral fraction. Seven base/neutral compounds were found in A2338, many at greater than 400 ug/l, that were not detected in A2334 at all. This is sufficiently outside of QC limits that the base/neutral fraction of all samples be considered approximate.

Holding times for the original analysis of all samples were within the required limits. Sample A2336 was re-run for volatiles and base/neutrals at a later date, so quantitation of any compounds detected in these fractions should be considered approximate. However, volatiles and base/neutral fractions of all samples were already approximated due to poor duplicate analysis.

The following table summarizes recommendations for this case:

	<u>VOA</u>	<u>B/N</u>	<u>A</u>	<u>PEST</u>
A2316	J*	J	(A)	(A)
A2334	J*	J	<u>RM</u>	<u>RM</u>
A2336	J*	J	(A)	<u>RD</u>
A2338	J*	J	<u>RM</u>	<u>RM</u>

A = Acceptable

J = Approximate

J\* = Approximate, except for methylene chloride which is rejected

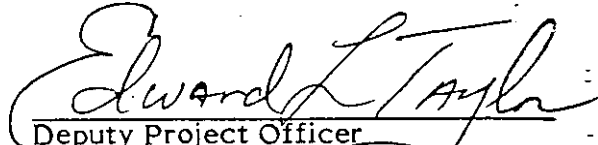
RD = Rejected due to dilution, nothing detected

RM = Rejected due to matrix problems, nothing detected

C-583-8-4-15

MEMO TO ED TAYLOR  
AUGUST 7, 1984 - PAGE THREE

I hereby acknowledge receipt and approval of the NUS/FIT level I data validation for soil data, case 2620 from Mead.

  
Deputy Project Officer  
Regional Sample Control Center

VT/tao

cc: D. Smith

R. DiNitto  
J. Morin  
A. DeMarco  
J. Panaro  
R. Cavagnero